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The Economics of Guilds

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Occupational guilds have been observed for thousands of years in many economies: ancient Egypt, Greece, and Rome; medieval and early modern India, Japan, Persia, Byzantium, and Europe; and nineteenth-century China, Latin America, and the Ottoman Empire.[1] Guilds were most prevalent in manufacturing. Almost all urban craftsmen were guilded and, in parts of central and southern Europe, many rural artisans as well. But the service sector also had many guilds. Nearly all premodern economies had guilds of merchants and retailers, and some also had guilds of painters, musicians, physicians, prostitutes, or chimney-sweeps. Guilds were rarest in primary production, but some places had guilds of farmers, gardeners, wine-growers, shepherds, miners, or fishermen.

Although guilds have existed for millennia in economies across the world, the analysis of guilds as economic institutions is largely based on Europe between about 1000 and about 1800. This is partly because empirical findings on guilds are richest there, and partly because guilds showed interesting variation across Europe, gradually weakening after 1500 in some societies but surviving long past 1800 in others. Most significantly, Europe is where sustained economic growth first arose, raising

[1] Broadly speaking, a guild is an association formed by people who share certain characteristics and wish to pursue mutual purposes. Historically, guilds have also included religious fraternities for common worship and insurance, foreigners' guilds to represent migrants and visitors from the same place of origin, neighborhood guilds for local improvements and sociability, and militia guilds for public order and emergencies. However, the vast majority of guilds were formed around shared occupations, even if they also engaged in religious or social activities.

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obvious questions about the relationship between guilds and growth. For these reasons, this paper also focuses on guilds in Europe since the later Middle Ages.

Guilds in medieval and early modern Europe offered an effective institutional mechanism whereby two powerful groups, guild members and political elites, could collaborate in capturing a larger slice of the economic pie and redistributing it to themselves at the expense of the rest of the economy. Guilds provided an organizational mechanism for groups of businessmen to negotiate with political elites for exclusive legal privileges that allowed them to reap monopoly rents. Guild members then used their guilds to redirect a share of these rents to political elites in return for support and enforcement. In short, guilds enabled their members and political elites to negotiate a way of extracting rents in the manufacturing and commercial sectors, rents that neither party could have extracted on its own.

My assessment of occupational guilds begins with an overview of where and when European guilds arose, what occupations they encompassed, how large they were, and how they varied across time and space. Against this background, I then examine how guild activities affected market competition, commercial security, contract enforcement, product quality, human capital, and technological innovation. In some of these spheres, some of the time, guilds took actions that may have helped to boost economic growth. However, I will argue that in each of these arenas the behavior of guilds can best be understood as being aimed at securing rents for guild members; guilds then transferred a share of these rents to political elites in return for granting and enforcing the legal privileges that enabled guilds to engage in rent extraction.

Debates about guilds are not just historical quibbles, but have wider implications for a very modern topic: the role of institutions in economic growth. The conclusion to this paper considers what we can learn from guilds about this question. Guilds, I will argue, provide strong support for the view that institutions arise and survive as a result of political conflicts over distribution (Acemoglu, Johnson, and Robinson 2005; Ogilvie 2007b).

A Brief History of European Guilds

Guilds existed in Europe under the ancient Roman Empire and appeared occasionally during the Dark Ages (c. 400–c. 1000), but came definitively back into view with the resurgence of trade and industry, together with public record-keeping, after about 1000. They had their heyday in the later Middle Ages, from about 1000 to about 1500, although they survived in some societies long past 1800 (for surveys, see Ogilvie 2007a, 2011). Local guilds of wholesale merchants reappeared in most European societies after the Dark Ages, from the early eleventh century onwards. A bit later, as long-distance trade expanded during the medieval Commercial Revolution, some local merchant guilds formed branches abroad as alien merchant guilds or "merchant communities" in foreign trading centers. Sometimes the merchant guilds of a group of towns formed a long-distance trading association called a "universitas" or a "hansa";

the most famous was the German Hansa, which by around 1300 encompassed merchant guilds from a core group of 70 north German, Dutch, and Baltic cities and a penumbra of about 100 smaller towns (Dollinger 1970; Ogilvie 2011). Guilds of craftsmen reappeared after the Dark Ages a bit later, typically from around 1100 onwards (Epstein 1991). Some places, especially in Italy, also developed "sectoral" guilds, combining the merchants and craftsmen of a particular industry (Caracausi 2014). The date that different types of guild emerged (or re-emerged) varied greatly across Europe (although the dates are sometimes confused by accidents of what documents have survived). But by the thirteenth century, guilds of local traders, long-distance merchants, and craftsmen were to be found across much of Europe. For the next 300–600 years, to practice industry or commerce in most European towns, it was necessary to obtain a license from the relevant guild, although there were also some guild-free towns and enclaves (discussed below).

Around 1500, the European guild landscape began to change. In the dynamic North Atlantic economies, especially England and the Low Countries (modern Belgium and the Netherlands), merchant guilds declined, with a proliferation of individual entrepreneurs who did not belong to any formal associations (Harreld 2004; Ogilvie 2011; Gelderblom 2013). Craft guilds also began to weaken, as trade and industry moved to the countryside where no individual city could thoroughly enforce its guild regulations because of the many other cities whose inhabitants also wanted to operate there (de Vries 1976; Coleman 1977; Ogilvie 2000; Davids 2008). Competition from guild-free rural artisans and traders in turn weakened urban guilds. At about this time, the greatest European trading city, Amsterdam, barred merchant guilds altogether; the greatest Dutch textile city, Leiden, abolished its craft guilds; and Flanders developed huge rural industrial zones such as Hondschoote with tens of thousands of unguilded producers and traders.

In England, guilds declined in many towns during the sixteenth century, with only a quarter of the guilds in existence in 1500 surviving to 1600 (Muldrew 1993). Many lost an important part of their finances and their functions during the Reformation of the 1530s and 1540s, when the crown dissolved all primarily religious guilds and confiscated the religious property of primarily occupational ones (Harding 2000). The crown became very reluctant to grant state charters to guilds outside London; this left provincial guilds heavily dependent on local urban authorities in the old corporate "borough" towns which were entitled to establish guilds but whose writ did not extend beyond the town walls (Clark and Slack 1976; Coleman 1977). By 1600, even the powerful London guilds (the so-called "livery companies") were increasingly unable to prevent London citizens from practicing any occupation freely, to control nonguilded producers in jurisdictional enclaves and suburbs just outside the city center, and to regulate their own members systematically; instead, they increasingly redeployed towards sociability and business networking (Kellett 1958; Rappaport 1989; Archer 1991). Only about half of a sample of 850 merchants active in late-seventeenth-century London even bothered to obtain municipal citizenship, which was necessary for livery-company membership, and only 38 percent actually joined a company (Gauci 2002). In England more

widely, guilds remained important only in the economically stagnant borough towns, which quickly lost ground to the fast-growing industrial towns such as Birmingham, Leeds, Sheffield, and Manchester where guilds were nonexistent or powerless; even in many of the old corporate boroughs, guilds were in decay by 1650 (Clark and Slack 1976; Coleman 1977; Pollard 1997; Ogilvie 2005; Lis and Soly 2008).

But England and the Low Countries were exceptional. In most other European societies, guilds retained economic influence into the late eighteenth or early nineteenth century (Ogilvie 1996b, 1997; Ehmer 2008). When industry and commerce moved to the countryside, urban guilds did not relax their restrictions to remain competitive but lobbied successfully for government protection against rural competitors in exchange for a share of their rents (de Vries 1976; Amelang 1986; Ogilvie 2000). New guilds continued to form during the eighteenth century in Germany, Austria, Spain, France, and even the Netherlands, whose sixteenth-century loosening of guild constraints gradually gave way to institutional and economic petrefaction after about 1670 (de Vries and van der Woude 1997; Davids 2008; van den Heuvel and Ogilvie 2013; Ogilvie and Carus 2014). Spain and Portugal even exported their guilds overseas, establishing powerful "consulados" which survived in Latin America into the nineteenth century (Woodward 2007). Many European guilds only broke down in the wake of the French Revolution, as France abolished its own guilds in 1791 and forcibly exported this institutional reform to the other European countries it invaded and occupied (Kisch 1989; Horn 2006; Fitzsimmons 2010; Acemoglu, Cantoni, Johnson, and Robinson 2011; van den Heuvel and Ogilvie 2013).

The number and size of guilds covered a wide spectrum. Some cities had many: London had 72 livery companies and 14 other occupational associations in 1500 (Rappaport 1989); Paris had 103 guilds in 1250, 124 in 1700, and 133 in 1766 (Saint-Léon 1922; Bourgeon 1985). But other cities had very few: Florence, one of the largest cities in Europe, had only 21 guilds in 1300 (Najemy 1979). Some guilds had only a handful of members: in seventeenth-century Paris, with half a million inhabitants, the metal-engravers' guild permitted a maximum of 20 masters, the clockmakers a maximum of 72 (Saint-Léon 1922). Other guilds did not have a formal upper limit, but nonetheless restricted entry via a required career track of apprenticeship, journeymanship, and mastership with strict conditions for admission (discussed below). Even in Florence, with 100,000 inhabitants in 1300, each of the 21 guilds averaged only about 350 members, ranging from 100 in the smallest to 1,600 in the largest (Najemy 1979). In the small German town of Fulda in 1784, with just 8,500 inhabitants, the 21 guilds averaged only 13 members apiece, ranging from the four dyers to the 60 shoemakers (Walker 1971).

No matter how numerous or large a town's guilds, guild members typically made up only a minority of inhabitants. Half the population was inherently excluded, since very few guilds allowed female members other than the second-class status permitted to masters' widows (Wiesner 2000; Ogilvie 2003; van den Heuvel 2007). Even for males, guild membership usually required town "citizenship," a costly privilege enjoyed by less than half the inhabitants of a typical premodern European

town: in sixteenth-century London or 's-Hertogenbosch it was an unusually high 75 percent, in most other English and Dutch towns 30–50 percent, in medieval Venice 5–10 percent, in other Italian cities 2–3 percent (Clark and Slack 1976; Rappaport 1989; Spruyt 1994; van Zanden and Prak 2006; Ogilvie 2011).

Most guilds also excluded Jews, bastards, migrants, laborers, farmers, propertiless men, former serfs and slaves, gypsies, members of other guilds, adherents of minority religions, men of "impure" ethnicity, and those who couldn't afford the admission fees (La Force 1965; Walker 1971; Ogilvie 1997; Caracausi 2014). As one nineteenth-century Spaniard put it, those without funds "called in vain at the door of the guild, for it was opened only with a silver key" (as quoted in La Force 1965, p. 92).

Guild membership was reserved to a privileged minority, even in towns. At the high end lay sixteenth-century London or Augsburg, where guild masters made up 50–60 percent of householders and 12–13 percent of inhabitants (Rappaport 1989; Roper 1989). In the middle range lay Barcelona, Rouen, or Venice, with guild masters comprising 40–50 percent of householders and 9–10 percent of inhabitants (Amelang 1986; Hafter 1989; Rapp 1976). But in Paris, Florence, or Turin, guild masters made up at most 20 percent of householders and 5 percent of inhabitants (Bourgeon 1985; Becker 1962; Cerutti 2010). Guilds were not all-encompassing workers' associations but exclusive organizations for middle-class businessmen.

As such findings show, however, guilds manifested interesting variation across societies, cities, and time-periods. This can help us assess their economic effects.

What Did Guilds Do?

Guilds engaged in multiple activities, so they provide an excellent demonstration of the principle that in analyzing the net economic effect of an institution, it is imprudent to focus on any one of its activities in isolation (Ogilvie and Carus 2014; Caracausi 2014). This section considers five areas in which guilds were active: 1) competition and market structure; 2) security and contract enforcement; 3) information asymmetries and quality standards; 4) human capital investment; and 5) technological innovation.

The effects of guilds in these key economic spheres have always attracted controversy (for surveys, see Ogilvie 2005, 2011; Epstein and Prak 2008). Contemporaries held strong views about them, with guild members (and the political elites they supported) extolling their virtues, while customers, employees, and competitors lamented their abuses. Many early economic thinkers praised guilds, as with the French government minister Jean-Baptiste Colbert who ordered all French crafts to form guilds, "so as to compose by this means a group and organization of capable persons, and close the door to the ignorant" (as quoted in Cole 1939, p. 419), or the Austrian imperial councillor, Johann Joachim Becher (1688, pp. 111–3), who argued that the authorities of old had invented the guilds because "competition weakens the livelihood of the community." Others, such as Adam Smith (1776

[1976], ch. X, pt. II, p. 152), censured guilds as "a conspiracy against the public." Modern scholars are also deeply divided on guilds. Some claim that guilds were so widespread and long-lived that they must have been generating economic benefits. They might, for example, have enhanced commercial security, facilitated contract enforcement, solved information asymmetries between producers and consumers, overcome imperfections in markets for human capital, created incentives favoring technological innovation, or generated social capital and trust. Others argue that guilds caused inefficiencies via monopolies and monopsonies, rationed access to human capital investment, stifled innovation, engaged in costly rent-seeking, harmed outsiders such as women, Jews, and the poor, and redistributed resources to their members at the expense of the wider economy.

My own reading of the evidence is that a common theme underlies guilds' activities: guilds tended to do what was best for guild members. In some cases, what guilds did brought certain benefits for the broader public. But overall, the actions guilds took mainly had the effect of protecting and enriching their members at the expense of consumers and nonmembers; reducing threats from innovation, competition, and audacious upstarts; and generating sufficient rents to pay off the political elites that enforced guild arrangements and might otherwise have interfered with them.

Competition and Market Structure

Guilds regulated market competition. Each guild possessed legal privileges endowing its members with exclusive rights to practice particular economic activities in a particular geographical area. These privileges typically consisted of a monopoly over producing specific goods and services, together with a monopsony over purchasing particular inputs. The merchant guild of a particular town secured for its members exclusive rights over trade in particular wares, transaction types, trade routes, or trading destinations. The weavers' guild of a particular place reserved for its members the exclusive right to weave fabrics made of particular materials, to sell them to consumers or merchants, to purchase raw or semifinished inputs such as wool and yarn, to employ the relevant labor including apprentices, journeymen, and freelance spinners, and to use the relevant equipment such as looms, fulling-mills, and bleaching-fields. A guild's exclusive privileges typically applied within a particular geographical area, sometimes consisting only of the town itself, often reaching into its immediate circumference, and sometimes extending more widely across a district or province. In many regions of central, southern, and eastern Europe, rural artisans defended themselves against urban harassment (and sought to corner monopoly rents of their own) by setting up purely rural guilds or forming "regional" guilds alongside urban craftsmen (Ogilvie 1996b, 1997; Ehmer 2008; Lis and Soly 2008). To establish and defend their monopolies and monopsonies, guilds excluded entrants, restricted trade volumes, set output prices above the competitive level, fixed input costs below the competitive level, and imposed costs on competitors (La Force 1965; Walker 1971; Clark and Slack 1976; Coleman 1977; Ogilvie 2004a, 2005, 2011; Lindberg 2008, 2009; Boldorf 2009; Caracausi 2014).

Some of a guild's exclusive entitlements were laid down explicitly, usually in a charter or ordinance issued by the town or state government. But guilds often enforced privileges that were not embodied in any legislation but were simply "well-known" to be part of their entitlements (Walker 1971; Ogilvie 2004a, 2011; Ehmer 2008). This led to constant demarcation conflicts—between guilds governing adjacent trades, merchant guilds and craft guilds, guilds of different towns, or guilds and nonguilded outsiders (Rosenband 1997; Ogilvie 1997, 2011; Trivellato 2006; Hafter 2007; van den Heuvel 2007; Lindberg 2008; Caracausi 2014).

Guild monopolies were shielded in a variety of ways. Some limits on competition arose from geographic factors such as high transportation costs, raw material endowments, urban agglomeration economies, or limits on migration (Ogilvie 1997, 2011). Others came from political protection. Guilds often secured government barriers to trade, as when the Venetian state blocked imports of French mirrors to protect the Murano glassblowers' guild (Trivellato 2006) or the governments of most European states blocked imports of cheap ribbons from the Netherlands or Basel produced on the forbidden innovation of the multi-shuttle ribbon frame (Davids 2008; Pfister 2008). Guilds also obtained direct enforcement of their privileges from municipal and state governments (La Force 1965; Bossenga 1988; Rosenband 1997; Ogilvie 1997, 2003; Wiesner 2000; Trivellato 2006; Horn 2006; Hafter 2007). Archival records are replete with cases of guild members penalized by the public authorities for producing above their guild quota, using prohibited techniques, or employing women. In 1669, for instance, when the weaver Hannss Schrotter broke his guild's rules by employing a female servant to weave, his town court fined him the equivalent of a maidservant's average annual wage (Ogilvie 2003). Public law-courts also punished black-market producers for illegally infringing on guild monopolies, as in 1711 when the Württemberg state responded to complaints by the retailers' guild against a converted Jew's widow by closing down her village shop, or in 1742 when a town court jailed a villager's wife after a complaint by the local nailsmith that she was "dealing in foreign nails, which violated the nailsmiths' guild ordinance, and damaged him in his craft" (as quoted in Ogilvie 2003). Governments also supported guilds in regulating labor markets, as in 1781, when the pinmakers' guild of a Normandy town fined a journeyman five years' wages for quitting his job counter to guild regulations, and the municipal authorities supported the guild on the grounds that "if workers could leave their masters when they please, insubordination and anarchy will result, and ruin manufacturing" (as quoted in Horn 2006, p. 45). The authorities also punished consumers who purchased wares from nonguilded craftsmen, as in Bohemia when the count of Friedland's court responded to complaints by the local tailors' guild in 1662 by fining three villagers for buying cheap garments from nonguilded interlopers, by which they had "premeditatedly tried to deceive the authorities and the court, and sought their own advantage" (Státní Oblastní Archiv Litoměřice, Pobočka Děčín 1662).

Guilds could seldom defend their cartel privileges perfectly, which has led to occasional claims that these privileges had no real economic effects (Epstein 1998; Epstein 2008; Epstein and Prak 2008; Greif, Milgrom, and Weingast 1994;

Greif 2006). Guild regulations were certainly violated both by free-riding insiders and cartel-breaking outsiders, creating a black-market informal sector. But this did not mean that the guild had no economic effects, only that these effects consisted partly of excluding competitors altogether and partly of pushing them into the black market. Even where a particular guild's cartel privileges were not perfectly enforced, they affected the economy by creating an informal sector of illegal trade where costs and risks were higher because of the threat of persecution (De Soto 1989; Boldorf 2009; Ogilvie 2011).

Although not all guilds have been investigated in detail, where documents survive they show that people at the time were willing to pay money to obtain, defend, attack, circumvent, or subcontract into guild privileges, suggesting strongly that those privileges were enforced sufficiently to have a real economic impact (Kisch 1989; Rosenband 1997; Wiesner 2000; Ogilvie 2005, 2011; Horn 2006; Boldorf 2009; Lindberg 2009; Caracausi 2014). Applicants paid high fees to get into guilds: the sixteenth-century Parisian grocers' guild charged a journeyman the equivalent of about nine years of wages for mastership (Larmour 1967); the eighteenth-century Parisian furriers' guild charged even a master's son (who paid the lowest fees) the equivalent of over nine years of wages (Kaplan 1981). Outsiders spent large sums circumventing guild monopolies or subcontracting into them, as in 1706 when illegal wigmakers were bribing Paris guild officials with sums equivalent to 1–2 years' journeyman's wages to let them practice without a license (Gayne 2004). Guilds themselves engaged in costly political lobbying and interguild conflicts to obtain, defend, and extend their privileges: one German weavers' guild spent a sum equivalent to 115 days of earnings for a guild master on lobbying and external conflicts every year between 1598 and 1760 (Ogilvie 1997). The willingness of so many contemporaries to spend resources attacking, defending, or gaining access to guild privileges suggests that those privileges exercised real economic effects (Ogilvie 1997, 2011; Boldorf 2009; Lindberg 2009; Caracausi 2014).

The documentary record provides only occasional snapshots of the direct effect of guilds on markets. But for the times and places where figures survive, they indicate that guild monopolies exerted real effects. When the German Hansa obtained exclusive rights over the Swedish Skåne fairs after 1370, participation by English and Dutch merchants declined, the fairs contracted, and the range of goods narrowed (Ogilvie 2011). After 1440, when the Norwegian crown began to reduce the privileges of the German Hansa in Bergen, there was an influx of merchants from Holland and the Norwegian trade expanded (Wubs-Mrozewicz 2005). In 1650, when the Württemberg state granted the guild-like "company" of the Calw merchant-dyers a monopoly over finishing and exporting worsted textiles, participation by weavers, women, and rural traders declined and the industry contracted (Ogilvie 1997). In the 1750s, when some Dutch town governments compelled guilds to lower their entry barriers, crafts and trades saw a huge influx of poorer entrants, especially women (van den Heuvel 2007). In the 1760s, when the woolen-weavers' guilds of the Bohemian town of Brno lost their power to regulate entry and technology, the industry immediately took off (Freudenberger 1960). In 1778, when

the Spanish *consulados* lost their monopoly, legal trade expanded hugely in Central America, the Río de la Plata, Chile, Cuba, and Venezuela (Woodward 2007). In 1791, when France abolished its guilds in the wake of the Revolution, tens of thousands of women and men applied for permission to practice previously guilded occupations (Fitzsimmons 2010). In the early nineteenth century, when the German city of Aachen abolished guilds, the textile industry expanded in the countryside and factories sprang up in neighboring Burtscheid and Monschau (Kisch 1989).

The history of guilds shows that occupational licensing, with its far-reaching effects, is not a modern phenomenon. Professional organizations enforcing barriers to entry were the default in all but the poorest occupations before the Industrial Revolution; what is new in modern economies is the existence of so many occupations where no license is required. Guilds demonstrate how occupational licensing, even when imperfectly enforced, has real economic effects, if only by pushing economic activity into the informal sector where growth is often stifled by insecure property rights, poor contract enforcement, high risks, short time horizons, information scarcity, consumer fraud, and labor exploitation (De Soto 1989; Trivellato 2006; Ogilvie 2007b).

Security and Contract Enforcement

Economic growth requires markets, and markets require supporting institutions that guarantee property rights and contract enforcement (Ogilvie and Carus 2014). Guilds, as closed social networks, might have been able to provide these guarantees by generating a social capital of trust and collective action. The historical evidence for Europe during the eight centuries before industrialization, however, indicates that property rights and contract enforcement were guaranteed primarily via private business practices (written records, pledges, brokers, notaries, firms) supported by public-order institutions (legal systems, town administrations, royal governments). Private-order institutions such as guilds occasionally provided informal supplements to these mechanisms, typically on a particularized basis for their own members. But they did not substitute for public institutions in providing generalized property rights and contract enforcement to the economy more widely (Edwards and Ogilvie 2012; Ogilvie and Carus 2014). Indeed, in some cases the actions of guilds in pursuit of rents for their members tended to reduce the security of property and contracts for others in the economy (Katele 1988; Tai 1996; Lindberg 2009, 2010; Ogilvie 2011).

For security of property rights, public-order institutions were far more important than private-order networks such as guilds. Very early in the medieval Commercial Revolution, rulers demonstrably had good security incentives. As the ruler of Champagne declared in 1148, he would not tolerate attacks on foreign merchants traveling to trade at the famous Champagne fairs, since this "tends to nothing less than the ruin of my fairs" (as quoted in Edwards and Ogilvie 2012, p. 132). He and his successors backed up these security guarantees with highway police, diplomatic penalties, and military force, which provided generalized protection to "all merchants, merchandise, and all manner of persons coming to the fair," thereby creating the

most important long-distance trading centers in western Europe (Edwards and Ogilvie 2012, p. 136). The most successful medieval and early modern trading locations—the Champagne fairs, Venice, Bruges, Antwerp, Amsterdam, London—were ones where the political authorities made such generalized security guarantees to all merchants rather than issuing particularized safe-conducts as privileges to members of favored guilds (Ogilvie 2011; Edwards and Ogilvie 2012; Gelderblom 2013).

Guilds sometimes took on tasks that related to providing public order, such as security, contract enforcement, and even military action. This has sometimes been interpreted as guilds effectively replacing the state in the provision of such goods (Greif, Milgrom, and Weingast 1994; Greif 2006). However, when the specific actions of guilds are examined and put in context, the lesson is that guilds only supplemented institutions of public order to a modest extent, only for their own members, and only when it suited the interests of the guild to do so (Ogilvie 2011).

As one example, craft guilds were occasionally used by town governments to organize municipal militias (Hickson and Thomson 1991). But guilds were neither necessary nor sufficient for such militias, and the majority of medieval and early modern towns and territories organized defense without directly involving guilds (Ogilvie 2011). Guilds of long-distance merchants also sometimes organized convoys, caravans, or fortifications in foreign trading locations (Volckart and Mangels 1999). But again, these club goods provided by guilds appear to have been an occasional convenience rather than a universal necessity, since in the same economies and time-periods convoys, caravans, and fortifications were organized by individual merchants, merchant firms, town governments, and princes (Ogilvie 2011).

Merchant guilds also sometimes put pressure on foreign rulers to grant security guarantees (Greif, Milgrom, and Weingast 2004). But guilds also lobbied foreign rulers for all sorts of other favors, including guaranteeing their cartel privileges and discriminating against competitors (Ogilvie 2011). Merchants who were not members of guilds also easily got security guarantees from rulers; indeed, guilded merchants often sought supplementary security guarantees as individuals, rather than as guild members (Harreld 2004; Ogilvie 2011). In all these cases, the actual security itself—whether guaranteed to individuals, to guilds, or to the entire economy—was provided by the public authorities (Ogilvie 2011; Gelderblom 2013). Furthermore, the security guarantees that rulers granted to guilds were particularized: they applied only to members of the guild that obtained them, typically in return for payments and favors to the ruler, and thus did not create generalized security to support economic growth more widely (Lindberg 2010; Ogilvie 2011; Ogilvie and Carus 2014).

Contract enforcement is another sphere in which guilds were sometimes active. Some guilds operated internal courts that decided conflicts among members, and this has inspired claims that guilds offered a private-order alternative to inadequate or nonexistent public legal systems (Greif 2006). But many guilds had no internal courts, those that existed operated under devolved authority from town or state governments, guild tribunals usually referred complicated conflicts to public courts, and guilded merchants often voted with their feet by taking contracts before

public jurisdictions—even when their guilds forbade it (Harreld 2004; Sachs 2006; Woodward 2007; Ogilvie 2011; Gelderblom 2013).

Guilds also sometimes provided contract enforcement via a "community responsibility system," whereby if a member of one guild defaulted on a contract with a member of another, the injured party's guild would impose collective reprisals on all members of the defaulter's guild, giving the latter an incentive to penalize the defaulter (Greif 2006). Collective interguild "reprisals" (as contemporaries called them) certainly occurred in medieval Europe. But such action greatly increased trading risks for all, including innocent third parties. Businessmen and governments therefore disliked them intensely and viewed them as a last resort. From the very beginning of the medieval Commercial Revolution, European trading centers sought to limit reprisals by embedding them in the public legal system (Boerner and Ritschl 2002; Edwards and Ogilvie 2012). Merchants often demanded that rulers outlaw reprisals as a condition of trading in their territories, as the Scandinavian and German merchants demanded from Russian rulers in 1191 or the Flemish rulers demanded from the King of France in 1193 (Ogilvie 2011).

Finally, to secure rents for their members, guilds also engaged in other activities that incidentally—or sometimes deliberately—*reduced* security of property rights and contracts. Merchant guilds attacked the trade of rival merchants directly or lobbied their governments to do so in order to protect their own monopolies and other privileges (Katele 1988; Tai 1996). In 1162, for instance, 1,000 members of the Pisan merchant guild in Constantinople attacked the 300-strong Genoese merchant guild with the intention, according to a contemporary account, of "despoiling and killing them" (as quoted in Ogilvie 2011, p. 226). This led to a two-day battle, the looting of 30,000 bezants' worth of merchandise, the bankruptcy of a major Genoese firm, and at least one fatality. Such attacks reduced security not only for guilds' competitors, but also for uninvolved third parties caught in the crossfire. The economic impact of guilds' security activities is therefore questionable. Guilds of merchants often (though not always) increased security for their members, but they also often decreased security for outsiders.

Overall, the empirical findings suggest that impersonal exchange in medieval and early modern Europe was sustained not by particularized arrangements such as guild jurisdictions or interguild reprisals, but by generalized institutions: private business practices backed up by public-order municipal or state institutions, which were open to all traders, not just members of privileged guilds.

Information Asymmetries and Quality Standards

Information asymmetries between producers and consumers concerning the quality of goods raises the possibility of a market failure which could be solved through standards set by a producer organization such as a guild. However, the problem of "quality" under asymmetric information is solved not by having producers fix a specific standard, but rather by providing consumers with reliable information about quality so they can choose the quality–price combination they prefer (Ogilvie 2004a, 2007a, 2008).

Guilds of craftsmen often regulated raw materials, production processes, training, and output characteristics, which has inspired some to argue that guilds offered an efficient solution to market failures concerning product quality (Gustafsson 1987; Richardson 2004). Indeed, a monopolistic organization such as a guild might be better able than a range of competing producers to guarantee a single, standard quality. But those same characteristics typically made a guild less able and willing to undertake the flexible response to changes in demand necessary to deliver the combinations of quality and price desired by a varied and changing population of customers (Ogilvie 2004a; Boldorf 2009; Caracausi 2014). This was recognized by contemporaries such as the French economist and industrial inspector Simon Clicquot-Blervache who in 1758 ruefully contrasted stagnant French industries with vibrant foreign (especially English) competitors, observing that "although it is useful to make perfect things, it is no less advantageous to make mediocre things, or even bad things, providing that the low price invites and brings about consumption . . . Our regulations and our guilds fix merchandise at the same quality level and the same form, and elevate our merchandise to a value that is too high to compete" (as quoted in Minard 2000, p. 486).

Moreover, guild guarantees of quality were often weak because guilds existed not primarily to constrain or penalize their members, but rather to secure and defend those members' rents. As a result, guilds typically penalized their members' quality violations too mildly to deter them (Homer 2002; Forbes 2002; Ogilvie 2005). Customers often described guild quality controls as inadequate, and wholesale merchants added their own quality inspections at point of purchase. As one German guild inspector declared in 1660, "the cloth-sealing takes place very badly, and when one says anything about it, one incurs great enmity" (as quoted in Ogilvie 2004a, p. 295). Guild inspectors lacked the incentive to develop the skills and deploy the effort necessary to detect low-quality work beyond superficial features (such as size), which were readily apparent to wholesale merchants and consumers anyway (Ogilvie 2005; Boldorf 2009).

Guild actions to secure rents for their members could also inflict unintended harm on the quality of guild output. Guilds often set price ceilings for raw materials, so suppliers would sometimes seek to earn profits by lowering quality (Ogilvie 1997). Guilds imposed piece-rate ceilings on subcontractors (such as spinners), depriving them of incentives to work more carefully (Ogilvie 2003; Boldorf 2009). Guilds sometimes enforced collective interguild "monopoly contracting," outlawing sales and purchases by individual craftsmen and merchants. This created a rigid regime of collective prices and quotas that removed individual craftsmen's incentives to do better work and individual merchants' incentives to experiment with new quality–price ratios that might better suit consumer demand (Ogilvie 2004a; Boldorf 2009). To defend their monopoly prices, guilds used their quality regulations to prevent their own members from producing the quality levels that some consumers actually demanded. In 1661, for instance, one German guild justified refusing to seal one of its member's cloths on the grounds that "Old Jacob Zeyher makes absolutely terrible cloths, but sells them very cheap and thereby causes the guild great injury," to which Zeyher replied that

he "sells such cloth in Offenburg, the people want it like that from him; but the guild sealers will not seal it for him" (as quoted in Ogilvie 2004a, pp. 296–97).

Comparisons across countries show that many strongly guilded industries produced goods and services of a quality—measured in terms of what consumers wanted—that compared poorly with similar industries where guilds were weak or absent. From the fourteenth to the mid-sixteenth century, for instance, the Flemish rural industrial agglomeration of Hondschoote grew rapidly, exported its textiles to satisfied customers all over Europe, and outcompeted the Flemish urban textile guilds—all without guild quality regulations. In the eighteenth century, the West Riding of Yorkshire developed the most successful worsted industry in Europe by producing "cheap and nasty" cloths subject to no quality controls by guilds, but also no price controls; instead, quality was monitored by merchants and customers at the point of purchase (Heaton 1965). Unguilded industries did not merely produce attractive-but-cheap goods, but also fine products well-known for their high quality, as in the case of the all-female Venetian lace-making industry, the Franconian wire-drawing industry, or the north Bohemian fine linen industry (Ogilvie 2005). In many successful European industries, quality control was solved through alternative institutions—merchant, town, or state inspections—that provided information about quality to potential purchasers without the rigidities imposed by guilds (Heaton 1965; Ogilvie 2004a; Boldorf 2009; Caracausi 2014).

Guilds were certainly often active in regulating quality. But there is little empirical support for the idea that they were efficient institutions for solving information asymmetries between producers and consumers. Their other incentives, particularly the desire to generate rents for their members, interfered with their ability to guarantee the appropriate standards: the variation in quality level desired by consumers, not producers (Ogilvie 2004a; Caracausi 2014).

Human Capital Investment

Guilds are often seen as synonymous with human capital investment, as many of them operated training systems. Any institution that fosters skills is interesting, since modern theories of economic growth postulate that investing in human capital makes people work more productively, invent better techniques, and substitute quality for quantity of offspring.

Guilds of merchants and retailers seldom regulated training, even though commerce demanded literacy, numeracy, and geographical and linguistic skills (van den Heuvel 2007; Ogilvie 2011). Guilds of craftsmen, however, did often operate mandatory training programs. Most required "apprenticeship," a minimum number of years of unpaid (or low-paid) on-the-job training with a guild master. After that, many guilds also mandated "journeymanship," a minimum number of years of day-laboring for guild masters, usually at capped wages, often involving compulsory "wandering" from town to town. Guilds often required an apprentice or journeyman to pass an examination or produce a "masterpiece," a piece of work used to judge his fitness to become a "master." Only masters, who had obtained the full guild license, were permitted to practice a guilded occupation independently.

While craft guilds often made apprenticeship and journeymanship compulsory—at least on paper—the extent of actual training sheds bleak light on the incentives of monopolistic professional associations with regard to human capital investment. Contemporaries often complained that guilds failed to penalize neglectful masters of apprentices, issued certificates to apprentices without examination, or granted mastership without training or examination to masters' relatives and well-off youths who paid for "privileges" (La Force 1965; Kaplan 1981; Horn 2006). A Thuringian merchant explained in 1681 that he preferred to buy textiles from nonguilded rural producers because among the guilded urban weavers, "masters' sons hardly ever went traveling [as journeymen], were not required to demonstrate their knowledge through any masterpiece, and hence did not know how to do anything" (as quoted in Ogilvie 2004a, p. 312). In the mid-eighteenth century, the Paris goldsmiths' guild admitted one-quarter of its new masters via special "privileges," one-third as nonapprenticed masters' offspring, and less than half by proper apprenticeship (Kaplan 1981). The Rouen ribbon-makers' guild admitted one-third of its masters via "privileges," over one-half as nonapprenticed masters' sons, and less than one-tenth after guild apprenticeship (Hafter 2007). Situations such as these were widespread because guilds, as associations of masters, had an incentive to certify the relatives of members regardless of skill and to reap rents by selling admission to untrained entrants who could afford to pay for privileges (Kaplan 1981; Ogilvie 2007a; Hafter 2007).

Cross-country comparisons also cast doubt on whether guilds were essential institutions for ensuring appropriate levels of human capital investment. Many occupations were guilded in some premodern European societies and unguilded in others. Linen weaving, worsted weaving, cotton production, scythe making, ribbon making, knitting, lace making, and the making of small iron goods were guilded in many regions of Germany, Austria, Italy, Spain, Bohemia, Serbia, Bulgaria, and Greece, but unguilded in many parts of England, the Low Countries, Scotland, Switzerland, and Ireland (Ogilvie 1997, 2004a, 2007a). What decided whether an activity would be guilded was not its skill requirements but whether a group of practitioners was politically able to secure and maintain guild privileges over that activity. In many European crafts, apprenticeships were entered into as private agreements between trainees and masters that were enforced like other contracts without the need for guild regulations (Davids 2003; Ogilvie 2007a; Wallis 2008; Caracausi 2014). In many other crafts, formal apprenticeships were irrelevant. Black-market "interlopers" who failed to obtain guild training—often, as in the case of women and Jews, because guilds excluded them—were vigorously opposed by guilds precisely because they had skills indistinguishable from those of guild members and were willingly hired by customers (Wiesner 2000; Ogilvie 2003, 2004b, 2007a; Hafter 2007; van den Heuvel 2007). For some premodern occupations, skilled training was clearly required, and in some, formal apprenticeship was the best method to provide it. But comparisons across premodern Europe suggest that guilds were neither necessary nor sufficient for ensuring that people invested in their own human capital.

Guilds did not just administer a training system which was open to all capable applicants. Instead, to secure rents for their members, guilds decided who was allowed to get training, and kept most people out. As one German jurist put it in 1780, "Anyone who wants to learn a craft has to possess particular qualities, which are necessary because without them no-one can be accepted as an apprentice and enrolled in a guild. Among these qualities are included . . . masculine sex, since no female may properly practise a craft, even if she understands it just as well as a male person" (as quoted in Ogilvie 2003, p. 97). Guilds denied apprenticeship not just to females, but to many males—Jews, bastards, gypsies, former serfs, and slaves; most members of other religions, ethnicities, and nationalities; those without the right parentage in the guild or community; those with an ancestor who had practiced a "defiling" occupation; and anyone who couldn't afford the entrance fees (Walker 1971; Wiesner 2000; Horn 2006; Ogilvie 2007a).

It might be argued that sexist, anti-Semitic, and racist cultural norms were universal in premodern societies, so guild barriers against women, Jews, and minority ethnic groups did not matter (for example, Epstein 2008; Epstein and Prak 2008). But cultural norms could only exert economic impact via institutions, such as guilds, that penalized those who deviated from the norms, for instance by admitting women or Jews to training. In markets where guilds were weak or absent, the individual self-interest of trainers, employers, and consumers made the enforcement of cultural norms much less effective (Ogilvie 2003, 2004b; Trivellato 2006).[2]

Craft guilds are sometimes portrayed as institutions that corrected failures in markets for human capital that made it difficult for individuals to choose the right training, for good trainers and good trainees to identify one another, and for consumers to identify well-trained producers (Epstein 1998; Pfister 1998; Epstein and Prak 2008). Did guilds ensure higher, or more economically relevant, levels of human capital investment for the small numbers of insider males whom they admitted than those individuals would have obtained otherwise? The deficiencies in guild training discussed above, the high drop-out rates among guild apprentices, the eagerness with which consumers bought goods and services from non-guild-trained "interlopers," and the success of so many nonguilded industries suggests that in many cases the answer was "no" (Heaton 1965; Rappaport 1989; Ogilvie 2007a; Wallis 2008).

Technological Innovation

How did guilds affect technological innovation? The most visible way in which guilds interacted with new techniques was when, as often happened, they opposed them. Many guild members thought there was a limited lump of labor to go around. Innovations that squeezed more output from existing inputs would flood markets,

[2] A 2007 estimate suggests that restrictions on women's access to education and training cost modern Asian economies $16–$30 billion a year, and that increasing female education and training by 1 percentage point would increase GDP growth by 0.2 percentage points (United Nations Economic and Social Commission for Asia and the Pacific 2007, pp. 105–6). Such findings for modern developing economies suggest that when guilds in preindustrial Europe restricted the access of women to training, they inflicted wider economic damage (Ogilvie 2003).

depress prices, and put guild masters out of work. As one fourteenth-century Catalan intellectual put it, "If a shoemaker comes along with new tools and makes 70 shoes in a day where others make 20 . . . that would be the ruin of 100 or 200 shoemakers" (as quoted in Casey 1999, p. 65). Guilds therefore often opposed innovations that seemed to threaten their rents in this zero-sum world. They lobbied against new devices and products, forbade their members to adopt new processes, blocked imports embodying new ideas, and boycotted wares and workers from places that used forbidden techniques (La Force 1965; Amelang 1986; Ogilvie 2004a; Davids 2008).

On the other hand, guilds did not always oppose innovation, and a number of new techniques were invented by guild masters or adopted within guilds (Epstein 1998; Epstein and Prak 2008). To some extent, this was inevitable because such a large percentage of specialized industrial producers were organized into guilds (Ogilvie 2007a, 2008). However, one can also propose theoretical models in which guilds provided institutional mechanisms to support invention and diffusion of new technology. For example, by providing monopoly rents in output markets, guilds might have allowed innovators to capture a portion of the gains from innovation. By monopolizing the labor market in a particular occupation, guilds might help to ensure transmission of techniques across generations (via compulsory years of apprenticeship) and across space (via compulsory traveling by journeymen). By promoting spatial clustering of craftsmen in towns, guilds might facilitate technology transfer among masters (Epstein 1998; Epstein and Prak 2008).

Of course, the fundamental issue is what institutional arrangements best address the potential for market failure posed by the fact that technological information is a public good. While the theoretical models of how guilds might foster innovation doubtless capture part of the truth, almost any market structure can be shown to have superior innovative qualities, depending on the choice of assumptions (Scherer and Ross 1990). Moreover, the assumptions in these models often do not fit the facts on the ground. Guilds, as we have seen, enjoyed legal monopolies with strong barriers to entry. Very high levels of industrial concentration, such as those fostered by guilds, rarely show any positive effect on technological progress, more often tending to impede it by limiting the number of independent sources of innovation, reducing incentives to improve market position by devising new techniques, and blocking entry by venturesome upstarts (Scherer and Ross 1990; Ogilvie 2004a).

Nor did the diffusion of technical information require guilds. As discussed above, outsiders who had been denied guild training managed to learn the relevant technical expertise without it, masters' widows who never had any formal guild training practiced the techniques legally, and many successful European industries transmitted their techniques across generations without relying on guilds (Ogilvie 2004a; Hafter 2007; Davids 2008; Caracausi 2014). Communicating innovations geographically did not require guild journeymanship: some of the most innovative industrial societies in premodern Europe (such as the Low Countries and England) did not require journeymen to travel, while some of the most backward did (such

as the German and Austrian territories) (Ogilvie 2007a; Davids 2008). In any case, premodern workers were highly mobile even in unguilded occupations such as agriculture and laboring (Lucassen and Lucassen 1997; Ogilvie 2003). Horizontal transmission of technical expertise may have benefited from spatial clustering, but for this, guilds were neither necessary nor sufficient. After all, industrial agglomeration is widely observed in many guild-free economies, including modern ones, because of its recognized economic advantages (Marshall 1920; Ogilvie 2007a, 2008).

Guild actions to secure rents for their members also had unintended, but negative, consequences for innovation. Guilds regulated production processes in detail as part of their overall goals of monitoring unlicensed production. But stipulating precisely how a product was supposed to be made also deterred innovation by ossifying production methods and excluding even desirable deviations (Daumas 1953; Trivellato 2006; Caracausi 2014). Guilds fixed minimum prices to protect their members from low-cost competitors, but this also deterred innovators by forbidding them to profit by finding ways to charge less than competitors (Ogilvie 2004a, 2007a). Guilds restricted admissions and prohibited mobility to exclude entrants, but these regulations also deterred innovation, because migration of practitioners embodying innovative industrial and commercial practices was the most common form of technological transfer in premodern societies (de Vries 1976; Amelang 1986; Boldorf 2009; Caracausi 2014). Guilds justified their entry barriers partly by their apprenticeship and journeymanship regulations which obliged practitioners to spend many years investing in learning a particular set of techniques; but this endowed masters with a heavy investment in human capital specific to that technology, creating incentives to resist any technical change that threatened the value of masters' investment (Daumas 1953; Ogilvie 2007a; Mokyr 2009). Guilds imposed demarcations between different crafts to protect their members' monopoly rents, but this deterred innovation by preventing the productive exchange of ideas between adjacent bodies of knowledge (Rosenband 1997; Ogilvie 2004a; Fitzsimmons 2010). The eighteenth-century English precision-instrument industry, for instance, was the most advanced in Europe partly because the London "livery companies" of the clockmakers and spectacle-makers no longer regulated entry or production practices, facilitating an influx of venturesome newcomers and innovative methods from adjacent occupations; in France, by contrast, the industry was stifled by guild regulations fixing occupational demarcations, workshop size, employee numbers, division of labor, output quotas, prices, and selling practices, which even royal and seigneurial protection could only partly counteract (Daumas 1953).

Comparisons within and between European societies suggest that, although guilds sometimes permitted or even pioneered new practices and products, their net effect on technological innovation was negative. In Normandy, one of the most highly industrialized French provinces, guild obstacles to new techniques and practices meant that by 1782, 85 percent of cotton manufacturing and the entirety of the woolen, stocking, metallurgical, paper, glass, chemical, and ceramics industries were sheltered in small, scattered guild-free enclaves (Horn 2012). Within

the Netherlands, Leiden distinguished itself from other cities by limiting or altogether banning textile guilds, yet its flourishing industries were at the forefront of technological innovation, introducing hundreds of new fabrics and a vast array of innovative methods and devices between 1580 and 1797 (Ogilvie 2007a; Davids 2008; Lis and Soly 2008). Within England, the mechanical innovations of the Industrial Revolution were introduced not in the guilded "borough" towns but in fast-growing centers such as Birmingham, Manchester, Leeds, Halifax, Sheffield, and Wolverhampton, which had no guilds (Clark and Slack 1976; Coleman 1977; Pollard 1997). Across German-speaking central Europe, English textile machinery was introduced first in the Rhineland where territorial fragmentation enabled local entrepreneurs to evade guild opposition by securing factory permits from neighboring states; and in Saxony, where rulers had systematically weakened guild institutions since the sixteenth century (Kisch 1989; Tipton 1976). Territories such as Austria, Württemberg, Bavaria, and Silesia, by contrast, retained powerful guilds of merchants and craftsmen which used government protection to block innovations in the hope of protecting their members' rents long into the nineteenth century (Freudenberger 1960; Tipton 1976; Ogilvie 1996a; Boldorf 2009).

Across Europe, as we have seen, the same industry could be strongly guilded in some societies, weakly guilded in others, and wholly unguilded in still others. There is no evidence that technological innovation was greater in the strongly guilded ones. On the contrary: in many cases unguilded or weakly guilded industries were at the forefront of inventing, adopting, and diffusing new techniques. Evidence on the level of both political regions and specific industries thus indicates that the net effect of guilds was to intensify, rather than to correct, imperfections in markets relating to innovations—not just markets for ideas, but the factor and product markets necessary for putting new ideas to work in practical business settings (Ogilvie 2000).

What Do Guilds Tell Us about Institutions and Growth?

Some models of markets and economic growth point out the importance of institutions that generate trust and "social capital." The empirical findings on European guilds suggest that trust and social capital take two distinct forms, which play fundamentally different roles in economic performance (Ogilvie 2005). A guild typically generated a *particularized* trust among its own members, as insiders in the closed and multiplex social network of that guild. But broader economic growth requires a *generalized* trust that makes people willing to transact on an equal footing with everyone, even strangers (Ogilvie 2011; Ogilvie and Carus 2014). There is no evidence that a particularized trust in people who were members of the same guild encouraged a generalized trust across the wider economy. On the contrary, as we have seen, the particularized social capital of guilds gave rise to rent-seeking, demarcation struggles, and hostility towards outsiders, diminishing rather than fostering the trust in strangers that might have made markets and states work better. Indeed, the history of European guilds suggests that the existence of entrenched social

networks fostering a particularized trust among members can block the rise of more productive institutional arrangements such as impersonal markets and impartial states that enable gains from trade among people who are dissimilar and do not already know one another (Ogilvie 2005, 2011; Ogilvie and Carus 2014).

Even more fundamentally, guilds hold lessons for explaining the emergence, survival, and decline of economic institutions themselves. Guilds existed in a vast range of geographically variegated locations, European and non-European, from the Arctic Circle to the equator, from huge maritime cities such as Venice and Istanbul to tiny landlocked villages in the Black Forest or northern Bohemia. These included societies of widely differing languages, religions, and value systems, from the Roman Empire to Egypt, India, China, Japan, Persia, Turkey, Europe, and Central and South America. This range strongly suggests that the formation of guilds is not an outcome of accident, geography, cultural beliefs, population density, or the technical requirements of particular occupations.

Instead, the historical findings on guilds provide strong support for explanations according to which institutions arise and survive for centuries not mainly because they address market failures, but because they serve the distributional interests of powerful groups (Acemoglu, Johnson, and Robinson 2005; Ogilvie and Carus 2014). Guilds illustrate the long historical interdependence between economic and political institutions in regulating markets. Guilds could sustain their members' collective monopoly against internal free-riding and external competition only by getting support from political authorities in exchange for a share of the rents. Premodern urban and royal governments drew on multiple sources of taxes, loans, and political support. But special-interest groups such as guilds offered highly attractive bribes, gifts, loans, fiscal services, and regulatory collaboration that enabled rulers and their officials to obtain funds in advance of tax receipts, to induce merchants and craftsmen to reveal information about business conditions through their bids for privileges, to put pressure on businessmen to make higher loans than would otherwise have been forthcoming, to benefit from businessmen's knowledge and expertise in collecting industrial and commercial taxes, and to mobilize political support from the bourgeoisie (Ogilvie 2011; Rapp 1976; Bourgeon 1985; Hafter 1989; Lindberg 2009; Caracausi 2014). Guilds were institutions whose total costs were large but were spread over a large number of people—potential entrants, employees, consumers—who faced high transaction costs in resisting a politically entrenched institution. The total benefits of guilds, by contrast, were small, but were concentrated within a small group—guild members, political elites—who faced low costs of organizing alliances to keep them in being. Guilds survived for so long in so many places because of this logic of collective action (Ogilvie 2004a). As the Minister of Finance Anne-Robert-Jacques Turgot wrote to the King on the eve of his unsuccessful attempt to abolish the French guilds in 1776, "Many people have great interest in retaining the guilds, both the heads of the guilds themselves and those who benefit along with them, for the conflicts to which the guild system gives rise are one of the most abundant sources of profits for the people of the Palace" (Schelle 1913–23, vol. 5, p. 159).

So why did guilds ever disappear? Even in the medieval and early modern heyday of guilds, there were enclaves—the Champagne fair towns, Douai, Hondschoote, Nürnberg, Leiden, the Zaanstreek, Krefeld, Normandy, Birmingham, Manchester—where businessmen and governments primarily used generalized rather than particularized institutions (Edwards and Ogilvie 2012; Ogilvie and Carus 2014). The period after roughly 1500 saw a widening divergence across Europe in the relationship between governments and guilds. In societies such as the Low Countries and England, the political authorities gradually ceased to grant and enforce guilds' privileges, while in "corporatist-absolutist" European states, such as France, Spain, Austria, Scandinavia, and the German and Italian territories, political elites continued to profit from their particularistic bargain with guilds for much longer (Ogilvie 2000, 2011).

The reasons for the gradual breakdown of the coalition between guilds and governments in some parts of western Europe remain a matter of lively debate. But current scholarship suggests a complex of factors that created a new equilibrium in which both the political authorities and the owners of industrial and commercial businesses gradually discovered they could do better for themselves by departing from the particularist path and beginning to use more generalized institutional mechanisms. These factors included stronger representative institutions (parliaments) that increasingly constrained how rulers could raise revenues and grant privileges to special interest-groups; a more highly diversified urban system in which towns did not act in concert, but rather competed and limited each other's ability to secure privileges from the public authorities; a more variegated social structure including prosperous, articulate, and politically influential individuals who wanted to practice trade and industry and objected to its being monopolized by members of exclusive organizations; and governments that gradually made taxation more generalized and developed markets for public borrowing, reducing the attractiveness of short-term fiscal expedients such as selling privileges to special-interest groups (de Vries 1976; Lindberg 2008, 2010; Mokyr 2009; Ogilvie 2011; Gelderblom 2013; Ogilvie and Carus 2014).

In the "corporative-absolutist" societies of central, Nordic, southern and eastern Europe, by contrast, the distributional coalition between guilds and governments only broke down through political conflict, always bitter and sometimes violent. France only abolished its guilds in 1791 after a national revolution and then imposed this institutional reform as it conquered neighboring polities such as the Southern Netherlands (modern Belgium and Luxembourg), the Northern Netherlands, many Italian states, and parts of Germany (Acemoglu, Cantoni, Johnson, and Robinson 2011). But there were also many European societies—Austria, Hungary, Portugal, Spain, the Scandinavian countries, and numerous German states—that did not abolish guilds until the 1860s or even later, in most cases only after long and bitter sociopolitical conflict.

The historical findings on guilds thus provide strong support for the view that institutions arise and survive for centuries not because they are efficient but because they serve the distributional interests of powerful groups.

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